



Adaptation to climate change and variability: Farmer responses to intra-seasonal precipitation trends in South Africa

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Abstract:

We describe the nature of recent (50 year) rainfall variability in the summer rainfall zone, South Africa, and how variability is recognised and responded to on the ground by farmers. Using daily rainfall data and self-organising mapping (SOM) we identify 12 internally homogeneous rainfall regions displaying differing parameters of precipitation change. Three regions, characterised by changing onset and timing of rains, rainfall frequencies and intensities, in Limpopo, North West and KwaZulu Natal provinces, were selected to investigate farmer perceptions of, and responses to, rainfall parameter changes. Village and household level analyses demonstrate that the trends and variabilities in precipitation parameters differentiated by the SOM analysis were clearly recognised by people living in the areas in which they occurred. A range of specific coping and adaptation strategies are employed by farmers to respond to climate shifts, some generic across regions and some facilitated by specific local factors. The study has begun to understand the complexity of coping and adaptation, and the factors that influence the decisions that are taken.

Source: <http://dx.doi.org/10.1007/s10584-006-9205-4>

Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☒

audience to whom the resource is directed

Public

Exposure : ☒

weather or climate related pathway by which climate change affects health

Precipitation

Geographic Feature: ☒

resource focuses on specific type of geography

Climate Change and Human Health Literature Portal

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Africa

African Region/Country: African Country

Other African Country: South Africa

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Review

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content